

EDUCATION

Shanghai Jiao Tong University

Sep 2015 - Jun 2019

Bachelor of Engineering (Zhiyuan Honors Degree), Computer Science, ACM Honors Class

- Advisors: Prof. Yong Yu and Prof. Xiaofeng Gao
- Research Interests: Machine Learning, Computer Vision, Natural Language Processing, Data Mining

Research Experience

Machine Learning Group, Purdue University

Visiting Undergraduate Research Intern

Sep - Dec 2018

- Advisor: Prof. Yexiang Xue
- Transform Scribbles to Oil Paintings with Multi-Task GANs.
 We introduced *Multi-Task Learning* to the settings of *Generative Adversarial Networks* to address the sparsity problem of scribbles. (IJCAI 2019 Submission)
- Hierarchical Learning for High-Dimensional Polynomials.
 Developing learning-rate adjustment algorithms and new network structures to balance the bias and variance for polynomial components with different degrees.

Counterfactual Machine Learning Group, Cornell University

Visiting Undergraduate Research Intern

July - Aug 2018

- Advisor: Prof. Thorsten Joachims
- Improve Supervised Learning on Logged Bandit Feedbacks
 Straightforward supervised learning often leads to large bias. We improved supervised methods by applying *inverse propensity weighting* to balance the bias-variance tradeoff.
- A Hybrid Method of Counterfactual Risk Minimization and Supervised Learning. Proposed a new hybrid method which not only learns the feedback of logged action, but also minimizes counterfactual risk for all the candidates in a batch.
- Ad Placement Challenge on Criteo Dataset Implemented proposed methods to learn an ad placement policy. Our hybrid method achieved Rank 1 in NIPS 2017 Workshop: Criteo Ad Placement Challenge (post-challenge).

Data Mining Group, Advanced Network Lab, Shanghai Jiao Tong University

Research Assistant

July 2017 - Present

- Advisor: Prof. Xiaofeng Gao
- Cross-Platform Event Popularity Analysis.

Developed a scheme to quantify event popularity and analyze the mechanisms through which an event propagates among multiple social media. (DEXA 2018 Paper)

- Sentiment-Aware Topic Popularity Prediction on Short Text based Social Media.

Developed a novel neural network to estimate public sentiment and integrate it with time series analysis to improve popularity prediction. (IJCAI 2019 Submission)

Publications

Scribble-to-Painting Transformation with Multi-task Generative Adversarial Nets Adversarial Nets Inning Li, Yexiang Xue

Submitted to International Joint Conference on Artificial Intelligence (IJCAI) 2019

In International Conference on Database and Expert Systems Applications (DEXA) 2018

Sentiment-Aware Topic Popularity Prediction on Short Text based Social Media 📙

Jinning Li, Qiang Zhang, Jiayi Xu, Xiaofeng Gao, Guihai Chen

Submitted to International Joint Conference on Artificial Intelligence (IJCAI) 2019

Topic Detection and Dissemination Trend Analysis on Social Network 🚨

Jiadong Chen, Tianxiang Gao, Xiaofeng Gao, Peng He, Jinning Li, Guihai Chen Submitted to SIAM International Conference on Data Mining (SDM) 2019

HIGHLIGHTED **PROJECTS**

DeepWave: Learning to Simulate Water Wave in Real-time 🗘 🖟

CS230 Virtual Reality and Interactive 3D Graphics, 96/100

Jun 2018

- Developed a method to learn the physical law of water-wave propagation and simulate the scene in real-time utilizing deep learning and wave packet theory.

Convolutional BiMPM for Natural Language Inference 🗘 🕹

CS229 Natural Language Processing, 93/100

May 2018

- Proposed a novel convolutional bilateral multi-perspective matching model for natural language inference task on SNLI dataset, improving the accuracy to 86.7%.

LineArtist: A Multi-style Sketch to Painting Synthesis Scheme 🗘 🗟 🚨

CS348 Computer Vision, **92/100**

Dec 2017

- Developd a scheme to synthesize beautiful paintings with only some semantic sketches, including three procedures: Sketch Image Extraction, Details Synthesis, and Style Transfer.

Compiler Maple (7)

MS208 Compiler Design and Implementation, Outperforms GCC -O1

May 2017

- Designed and implemented a compiler from Lexical Analysis to Register Allocation with graph-coloring optimization, translating Mx* (a hybrid of C and Java) to x86 Assembly.

Honors and Awards	Academic Excellence Scholarship of SJTU (First Prize). (Top 5%) Interdisciplinary Contest in Modeling (Meritorious Winner). (Top 7%)	2017 2017
	Zhiyuan Honorary Scholarship	2016, 2017
	Certificate Authority Cup International Mathematical Contest in Modeling (Outstanding Winner). (Top 1%)	2015
	Dongrun-Yau High School Science Award (World Final). (Top 1%)	2015

MS100: Operating System Teaching EXPERIENCE

Spring 2018

Teaching Assistant

CS122: Programming Teaching Assistant

Fall 2016

C/C++, Java, Python (TensorFlow, PyTorch, MXNet) Programming **PROFICIENCIES** HTML & Javascript (D3.js), MATLAB, LTFX, Verilog HDL

Finance, Biology, Art, and Physics INTERESTS, ACTIVITIES Member of Ivy Symphony Orchestra